

Clinical Features and TCM Therapy of Food Borne Disease

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ABSTRACT: analysing the way of food borne disease infected, the mechanism of various factors on the human body disease, disease type and TCM prevention and treatment of a variety of food borne disease to explore the effect of TCM on the prevention and treatment of food borne disease and prospects. **Methods:** collecting the literature on food borne disease, kinds of factors, pathogenesis and disease types of TCM prevention and treatment of its information. **Results:** the factors of causing food borne illness are mainly heavy metal exceeds bid, unreasonable additives and overweight, pesticide residues, antibiotics overweight, etc.; Diseases of TCM has a good effect to prevent and treat the illness of Nervous system disease, reproductive toxicity, liver toxicity, renal toxicity, low immunity, harmful microbes which are caused by the food borne. **Conclusion:** Traditional Chinese medicine prevent and treat food borne illness by playing more targets, two-way adjustment.

KEYWORD: Food borne diseases; Heavy metal ions; Pesticide residues; Excessive antibiotic; Traditional Chinese medicine treatment

1 GENERAL INSTRUCTIONS

Food borne disease refers to the body suffer from infectious or toxic diseases through diet [1]. And divided pathogenic factors into bacteria and toxins, viruses, and patients, the parasites and protozoa, poisonous plants and animals, mycotoxins, chemical pollutants, unknown pathogenic factors such as the eight class [2]. It is high incidence of food borne diseases in China, a total of 1 081 940 cases of food borne disease in 2010 [3].

1.1 *Food borne disease infected The pollution of heavy metal ion in the food*

Heavy metal ion in air and pesticide are mainly of food pollution of, heavy metal ions participates in the cycle of water, soil, biological systems, Cleared difficultly in water, reactions with the body involved in organic. Plants as primary producers will accumulate a large number of heavy metal ions in the food chain, animal enters the food chain by feeding ,seriously endange the health of the animals and humans. Canada, Japan and other happened such as "minamata disease", "bone pain disease", nickel poisoning incident are example [4].

Cadmium is a toxic heavy metal content, acute and chronic poisoning caused in human body. W-HO litedit as the focus of the study of food contaminants .

The green vegetables are a major source o-f pollution of cadmium [5]. caused pathological changes in human and animal models of neurological eff-ects through the brain parenchyma and neurons, the accumulation of excessive body will lead to distraction, memory loss, pain sensitivity high, abnormal sense of smell etc. Research shows that, cadmium ca-n micron level for someneurons and glial cells to produce neurotoxicity, and the cytotoxicity can acceler-ate cell apoptosis, and concluded that cadmium induced cortical neuronal apoptosis is caused by central nervous system abnormalities and main causes of memory loss, poor mental development [6].

The heavy metal mercury caused toxicity in 0.01~0.001 g/L in water, and cumulative toxicity is far g-reater than this. The light, microorganisms transform mercury into more toxic mercury metal compounds from the environment, the body intake of mercury in food by the food chain biomagnification, step by step in the human bodyconcentration in some organs of the human body, savings, which affect normal h-human life caused by metal ionspoisoning [7]. a strong toxicity of mercuric chloride complexes and damage the body, interfering expression of metallothionein in the body in the brain, resulting in the body of DNA and decreased the content of RNA. The influence of other common heavy metal ions on the human b-ody are shown in Table 1

Table 1 Effect of common heavy metal ions on the human body

Ion	Pb	V	Cu	Sb
impact	nervous system	abnormality of cholesterol metabolism	Loss of cell viability	skin

1.2 Pesticide residues in food

The most effective pesticide is not easy to degrade and toxic effects on the human body, long-term consumption of accumulation in the body will produce the disease on the body. Damage the neuromuscular-r of central nervous system disorders, produce nerveinflammation, senile dementia; liver enzyme

absorpti-on and decomposition of the toxin, increase the burden of the liver if long-term edible withpesticide re-sidue, cause liver cirrhosis, water and some otherhepatic lesions [8]. The influence of other common pest-icide on the human body are shown in Table 2

Table2 Effect of common pesticide on the human body

Pesticides	Parathion	Demeton	Phorate	Dichlorvos	Methyl parathion
impact	Neurasthenic syndrome, reproductive toxicity, carcinogenicity	Toxic hepatitis, paroxysmal atrial fibrillation and mental sequelae	Neural physiological function disorder	DNA inhibition, sperm morphological change, reproductive toxicity, carcinogenicity	Neurasthenic syndrome, sweaty, fasciculation etc.

1.3 Exceed antibiotics in food

The influence of common antibiotics on the human body are shown in Table 3

antibiotics	Oxytetracycline	Tetracycline	Doxycycline	Chloramphenicol	Sulfadiazine
impact	Hepatotoxicity	nephrotoxicity	central nervous system diseases	Hepatotoxicity	nephrotoxicity

1.4 Additive in food

The leavening agent is a common food additives, composed of ammonium bicarbonate and potassium aluminum sulfate. Widly used in the fermentation, fried, puffed and pickled seafood vermicelli [9]. To observe effect of different concentrations of leavening agent on mice sperm deformity rate andmicronucleu-s rate of bone marrow cells show: potassium aluminum sulfate in each dose group of mice induced by the micronucleus rate was significantly higher than that of the negative control group, two kinds ofleav-ening agents were able to make mice sperm abnormality in mice [10].

2.2 The treatment of disease caused by residual pesticides in TCM

The treatment of neurological diseases: Liu Jianyu [12] with Buchang Naoxintong capsule with scalp acup-uncture in treatment of senile dementia, cerebral vascular dementia, hemifacial spasm, facial paralysis and other diseases have several efficiency more than an average of 75%, which to curesenile dementia rate-s as high as 100%. Treatment of liver disease: Traditional Chinese medicine canpromoting blood circul-ation and removing blood stasis and anti liver fibrosis fennel has the urine, eliminate ascites and improv-e degree of liver fibrosis and liver function, promote the role of cirrhotic rats with ascites, and reduce the aldosterone, nitric oxidesynthase levels in cirrhotic rats with ascites. large doses of Rhizoma Atract-ylodis Macrocephalae significantly accelerate the removal of intraperitoneal saline load, absorption capa-cityincreased peritoneal of the water [13]

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2.1 The treatment of disease caused by heavy mental ion in TCM

Jujube, Chinese yam, Atractylodes, Poria cocos, white lentils, calcined oyster contain Calcium, zinc and other elements and vitamin and organic acid which formate of complexes with lead, Promote the excretion of lead[11].

2.3 The treatment of diseases caused by food residues of antibiotics in TCM

The polysaccharides in seeds of Plantaginis, ginseng polysaccharide can activate immune cells, induce complement produce interleukin I cell factor; matrine

berberine, bean straw, total alkaloids, alkaloids, Huang Mangan, icariin, ginsenoside can improve immunity, saikosaponin can inhibit influenza virus effect on body. Antipyretic Qingyan significantly improve function of the low immunity mice reticuloendothelial system phagocytic [14].

The study found that the Shenqi oral liquid (Radix ginseng, Chinese angelica, astragalus, Cistanche, Radix Ophiopogonis etc.) has a good effect on renal toxicity, lead to renal failure, the plasma of patients with chronic renal failure by downregulation of PS, ameliorate glomerular microcirculation; reduce the swelling of the glomerular area, degree of tubular injury, inhibit the expression of TNF and PDGFBB and TGF beta 1, reduce the damage of renal tubules; adjustment proportion of CD4 and CD8 to decrease the immune damage [15]. The majority of Chinese medicines such as Radix Isatidis, acanthopanax root, rehmannia root, Polygala containing oligosaccharides, traditional Chinese medicine oligosaccharides can activate body hematopoietic microenvironment cells, hematopoietic growth factor secretion increases promotes the proliferation of hematopoietic progenitor cells [16].

2.4 The treatment of diseases caused by sperm of additive in TCM

Food additive mainly lead to a decline in sperm quality, body deformity, cause of infertility, fetal congenital diseases. The study showed that Liuweidihuang soft capsules can strengthen the body immunity, nourishing function, improve the trace elements and vitamins to spermatogenic cells and Sertoli cells, also improve the accessory gland function, and play a role in protection of sperm DNA integrity [17]. Schisan-dra improved survival rate of sperm density, sperm, sperm deformity rate reduced efficacy, reduce the serum FSH and LH levels, elevated T level in testis tissue homogenate [18].

3 DISCUSSION

Now the food borne disease gradually increased, mostly related to changes in lifestyle and diet structure. Western medicine to cure such diseases have the effect, but as long as a withdrawal would lead to recurrence of the original food toxins and drugs in vivo accumulation of side effect exacerbated burden on the body, leading to a vicious cycle. Chinese traditional medicine can promote blood circulation and remove blood stasis and anti liver fibrosis, both antibacterial and inhibit endotoxin and prevention of resistance; regulation of vasoactive substances, protecting vascular endothelium, renin angiotensin system, traditional Chinese medicine

treatment of the disease multiple targets into full play effect of conditioning the body, mainly to stimulate their own immunity, food borne disease treatment is one of the research emphases in TCM.

Food borne disease prevention should start from the source, science and reasonable diet structure is the basis of the prevention. Transgenic food is now become a hot focus, GM proponents of transgenic crops resistant to insect, reduce pesticide pollution and can complement good genes on the human body. Opponents argue that it is harmful to food security, ecological security, life ethics and other issues, the voice of opposition to also have a higher and higher wave potential. At present there is not a national organization claim that GM food is safe. Increase research on genetically modified food, GM food and effective mechanism to identify different non GMO in food ingredients and effects on the human body mechanism will be the research.

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